

The system in Bauer and the subject matter of the pending claims are substantially different in structure and function. Independent claim 1 describes a system comprising, among other features, (1) a data carrier being an electronic tag; (2) a distribution information processing module; and (3) a distribution information management module. The system in Bauer comprises (1) a control and monitoring unit; (2) an active programmable memory card; (3) an analysis unit; and (4) a peripheral programming unit.

The parts of Bauer identified in the Office Action cannot reasonably be considered to have suggested all of the features to which they are alleged to correspond. In other words, the features attributed to the parts in Bauer do not correspond to features recited in at least independent claim 1 in the manner suggested.

Claim 1 recites, in a very detailed manner, a distribution information management system having a structure comprising (a) a data carrier attached to an article that stores information relative to the article, the data carrier being an electronic tag, (b) a distribution information processing module that reads information from and stores information to the data carrier, and (c) a distribution information management module that the distribution information processing module communicates with via first and second communication parts, the distribution information management module managing information relative to distribution of the article.

Bauer cannot reasonably be considered to teach, or to have suggested, a system of corresponding structure and function comprising these features. For example, Bauer does not teach attaching a data carrier attached to an article for storing the information relative to the article that is an electronic tag. Rather, Bauer teaches a control and monitoring unit comprising a computer with data and program memories, a real time clock, an array of sensors, and various interfaces housed within the transport container. The Office Action asserts, on page 5, that this control and monitoring unit "meets the recitation of a data carrier

attached to an article that stores information relative to the article, the data carrier being an electronic tag." On the contrary, Bauer teaches away from separating the data carrier from the computer, sensors, and real time clock. To do so would render the system in Bauer unsuitable for its intended purpose; *i.e.* independently sensing and recording data during the distribution process. It is, therefore, improper to assert that this unit of Bauer can reasonably be considered to suggest an electronic tag.

The Office Action asserts, on page 6, that the stationary analysis unit (41) can reasonably be considered to correspond to the information generating unit resident in the distribution information processing module. This assertion is incorrect. Bauer does not teach an analysis unit processing "information to be stored in the data carrier, wherein the information includes at least a signer identifier that is a receiver identifier of last information stored in the data carrier." Bauer teaches that the stationary analysis unit (41) reads data from and writes programs to the memory card (2) (col. 6, lines 43-46). The memory card (2) in Bauer is not resident in the control and monitoring unit (1) that is purported to meet the recitation of the data carrier. Nor does the analysis unit (41) communicate directly with the identification unit (15), which the Office Action apparently considers to correspond with the data carrier that is an electronic tag. The information generating unit, as positively recited in claim 1, is resident in the distribution information processing module, which communicates directly with the data carrier. Therefore, Bauer does not teach or suggest the structure or function of the information generating unit disclosed in independent claim 1.

The Office Action asserts, on page 6, that the computer (32) of which the memory card (2) of Bauer is allegedly comprised meets the recitation of a first verification part. This assertion is incorrect. First, it remains incomprehensible to assert that a memory card comprises a computer, and any alleged information generating unit, as discussed above. Second, the verification in Bauer is drawn specifically toward verifying the identity of the

person seeking access to the control and monitoring unit (see col. 2, lines 18-23). This information is resident in the memory card (2), which is distinct from the control and monitoring unit (1) attached to the goods. The first information verification unit, described in independent claim 1, that the Office Action alleges the memory card corresponds to, which it does not, verifies the information relative to the goods, contained on the data carrier, which is attached to the goods. These are distinct structures, purposes and processes. Therefore, Bauer cannot reasonably be considered to teach, or to have suggested, the features of the first information verification unit or the first verification part as recited in the claims.

The Office Action asserts, at page 6, that the analysis unit (41) and the unidentified part (44) substantially teach the information generating unit that processes the information to be stored in a data carrier including an alleged distribution information generating part. As stated previously, the analysis unit (41) does not communicate directly with any element corresponding to the data carrier described in independent claim 1. Nowhere in Bauer is it taught, or can it reasonably be considered to have been suggested, that the analysis unit (41) and the unidentified part (44) will generate and process the information to be stored in the data carrier, wherein the information includes at least a signer identifier that is a receiver identifier of last information stored in the data carrier, as is positively recited in the pending claims. Element (44) of Bauer is not described and as such it is improperly speculative and unsupportable for the Office Action to consider this unidentified part to correspond to any positively recited claim features. At most, the analysis unit (41) discloses forming a log of the distribution process (Col. 2, lines 24-28); *i.e.* summarizing previously recorded data, not generating information to be stored on the data carrier.

The Office Action asserts, on page 9, that the programming unit (4) described in Bauer comprises an interface that meets the recitation of a second communication part that communicates with the distribution information processing module. The programming unit

(4) in Bauer, cannot reasonably be considered to teach, or even to have suggested, the features of the second communication part of the distribution information management module recited in independent claim 1. The programming unit (4) in Bauer has a limited functionality, *i.e.* programming the memory card (2) (see col. 6, lines 32-37). The information management module comprising the second communication part has significantly broader positively recited features. For instance, the information management module is capable of verifying the information it receives from the information processing module via second information verification unit, a feature not taught, or suggested by, the programming unit (4).

For at least the foregoing reasons, Bauer cannot be considered to have suggested all of the features the Office Action alleges.

B. Sudia Does Not Teach Or Suggest The Details Of The Signature Verification System

The Office Action concedes that Bauer does not disclose a signature generating process that stores signature key information for generating a digital signature. The Office Action, therefore, relies on Sudia to overcome this shortfall. The Office Action, on pages 7 and 8, asserts that Sudia discloses all of the signature key generation, storage, selection and verification features recited in claims 1-27. This conclusion is incorrect.

The signature system described in Sudia is a method for assembling a complete electronic signature from independent partial signatures. Nowhere in Sudia does it teach, or can it reasonably be considered to have suggested, housing all of the data and functions necessary to affix a complete signature in one unit, as is positively recited in the distribution information processing module of claim 1. As such, Sudia cannot reasonably be read to teach, or to have suggested, the combination of all of the features recited in at least claim 1.

Sudia is indicated as suggesting the signature key generation process recited in the pending claims. However, even the partial signature generation and application described in

Sudia is significantly different from that of the pending claims. Sudia teaches affixing partial signatures via either computers contained in vaults or remote workstations with authorizing agents using a secure smart cards (55) (paras. [0050], [0054]). The assertion in the Office Action that the vaulted computers or smart cards disclosed in Sudia correspond, in any way, to a signature module that performs a complete signature generating process being detachable from the distribution information processing module and that is tamper proof is unreasonable (see claims 2 and 3).

Further, Sudia fails to teach a signature key use limit information storage part that stores a signer key use limit information to indicate whether the signature key information is already used or a system wherein the signature key information selection part does not select signature key information used more than a specified number of times for signature (see claims 1 and 4).

The Office Action asserts, on page 11, that Sudia discloses these features and that "the signature key information selection part does not select signature key information used more than a specified number of times for signature..." This assertion is wrong.

Independent claim 1 recites, among other features, a signature key use limit information storage part that stores a signer key use limit information to indicate whether the signature key information is already used. This feature allows the key to be set for a finite number of uses with regards to a corresponding item as seen in claim 4 (see also Applicant's disclosure at page 33). The Office Action appears to consider Sudia's disclosure of assigning or including in the header of each document, a document and signature tracking to assist in managing the flow of documents through the system comprising the total number of partial signatures needed to complete the signature and the number of partial signatures already applied as corresponding (see pages 7-8 of the Office Action). However, this misconstrues

several important features and operational concepts between the disclosure of Sudia and the subject matter of the pending claims.

First, Sudia does not teach or suggest programming key information which can be used a finite number of times. Second, to do so would be contrary to the whole purpose of the signature system disclosed in that invention. Third, the information in Sudia is contained in the electronic document, not within the signature key, a fundamental difference in the case of multipart signature processes. Sudia compiles a number of partial signatures on one document. The partial number of signatures needed to complete the signature can be varied. Individual partial signers are, however, inherently limited to one and only one partial signature per document.

Independent claim 1 specifically recites a storage part that indicates whether the signature key information is already used. Sudia has no corresponding part. Further, modifying Sudia to allow partial signers to apply more than one signature to the same document would be directly opposed to the purpose of Sudia, which is to gather a set number of independent partial signatures in order to complete the signature on an individual document. This type of modification to the reference would have the effect of changing the principle of operation and is, therefore, improper.

Independent claim 1 and at least dependent claim 4 describe a system that documents the number of uses of an individual signature key as applied to an item and further limits the number of times an individual signature key can be applied to that item. These features are not possible in Sudia, are directly opposed to the purpose for which Sudia is designed, and would impermissibly change the principle of operation.

II. Bauer And Sudia Cannot Be Combined In The Manner The Office Action Suggests

The Office Action asserts, at page 8, that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Bauer to provide a key signature verification process as taught by Sudia capable of generating, storing, and selecting electronic signature key information. This assertion is not supportable for at least the following reason.

Sudia is not analogous prior art to the subject matter at issue. Therefore, it is not independently applicable nor can it be reasonably combined with Bauer. "In order to rely on a reference as a basis for rejection of an Applicants' invention, the reference must either be in the field of Applicants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re: Oetiker*, 977 F.2d 1443, 1446, 24 USPQ 2d 1443, 1445 (Fed. Cir. 1992). Sudia is neither "in the field of Applicants' endeavor" nor "reasonably pertinent to the particular problem with which the inventor was concerned."

The present application is directed to an information management system for the distribution of goods. Sudia is directed to a method and apparatus for assembling a complete electronic signature from a designated number of partial electronic signatures. It employs the roaming use of cryptographic values in a multi-step signing system that uses multiple signing devices to affix a single signature which can be verified by a single public verification key (Abstract). Specifically, Sudia is directed to providing a digital signing system for certificates and other high value documents including contracts, electronic representations of currency, negotiable documents, etc., with improved security and flexibility (paragraph [0006]). As such, Sudia cannot reasonably be considered to fall within the field of Applicants' endeavor, *i.e.* the distribution and management of goods.

Further, the subject matter of Sudia would not have logically commended itself to the Applicants' solving of the problem they faced. Sudia deals with the assembly of a complete signature from partial signatures. The number of partial signatures required for a complete signature is set at the beginning of the process. The subject matter of the pending claims is concerned with developing an open-ended distribution and tracking system. The structures, functions, and objectives of these systems are sufficiently different that they cannot reasonably be considered to be analogous (see, e.g., *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 26 USPQ2d 1767 (Fed. Cir. 1993) (which found subject matter not to be analogous even though the application and reference both dealt with single inline memory modules)).

Further, MPEP §2143.01 instructs that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests that the desirability of the combination." Nothing in the prior art suggests any desirability of combining Bauer and Sudia. Certainly, nothing in Bauer, which deals with independently sensing and recording data during the distribution of goods, suggests the desirability of adding a network-based, encrypted, electronic signature assembly process. Adding a security system to a distribution system is Applicants' solution and, as such, this combination of references, to any extent that they may be considered combinable, can only be arrived at through the exercise of improper hindsight reasoning based on the roadmap provided by Applicant's disclosure.

MPEP §2143.01 further instructs that "[a]lthough a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the references to do so.'" See also *In re: Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990). Applicants respectfully submit that the rejection of, at least, independent claim 1 is improper in view of, at least, MPEP §2143.01 because the Office Action lacks the

required specific evidence of a teaching, suggestion or motivation in the prior art for one of ordinary skill to combine the references.

There is nothing in Bauer to suggest combining it with the network-based, encrypted, electronic signature assembly process of Sudia, or vice-versa. As such, any attempt to combine the applied references is improper on its face. The asserted motivation in the Office Action falls short of meeting the standard for such motivation as is required to make a *prima facie* showing of obviousness. The Office Action attempts, at page 8, to identify a motivation to combine Bauer and Sudia by looking at the individual features disclosed in Sudia. The features noted by the Office Action include: a multi-step signing system wherein the signing module provided for verifying signature of other signers for performing, generating and distributing keys is a tamper-proof secure signing device; security of the system is enhanced by distributing capability to affix signatures among a plurality of signing devices; the system can use the signature of the device to verify the trust level of the device on any given transaction; no single signing device or location needs to contain the signature key where it can be compromised instead multiple sites must fail or compromise together; the system is both secure and flexible because if any signing device fails it can be replaced; security is enhanced as the signing operation cannot be completed with a single signing device.

The Examiner has impermissibly looked at discreet functions and features of the references in order to suggest a motivation to combine that does not, in fact, exist (see MPEP §2141.02). Applicant submits that the supposed motivation taken by the Examiner from Sudia is indeed "in a sense necessarily a reconstruction based upon hindsight reasoning" (quoting the Advisory Action of December 21, 2005). The types of problems addressed by these respective references are entirely unrelated; in particular, goods environment monitoring for Bauer and network signature key distribution for Sudia. The disparity in subject matter of

the references negates any motivation of one of ordinary skill in the art to combine their teachings.

III. Conclusion

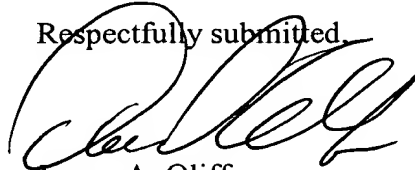
For at least the above reasons, Applicants respectfully submit that the combination of at least the features recited in independent claim 1 is neither taught nor would it have been suggested, by any permissible combination of Bauer and Sudia. Further, independent claims 18 and 20-27 are also neither taught, nor would they have been reasonably suggested, by any permissible combination of the applied references for at least their inclusion of several of the same distinguishing features as are recited in independent claim 1 as discussed above. Finally, claims 2-17 and 19 are also neither taught, nor would they have been reasonably suggested, by the combination of the applied references for at least the respective dependence of these claims directly or indirectly on independent claims 1 and 18, as well as for the separately patentable subject matter that each of these claims recites.

For at least the above reasons, the combinations of all the features varyingly recited in claims 1-27 cannot be considered to be taught, or to have been reasonably suggested, by any permissible combination of Bauer and Sudia. Accordingly, reconsideration and withdrawal of the rejection of claims 1-27 under 35 U.S.C. §103(a) as being unpatentable over the combination of the applied references are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this Application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-27 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this Application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,



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